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BIOGRAPHIC DATA ON POLISH SCIENTISTS

MAKSYMILIAN TYTUS HUBER

Warsaw, Zycie Nauki
 Mar/Apr 50

Maksymilian Tytus Huber, winner of the State Prize in Science, is profes-
 sor of advanced mechanics in the Polytechnical Department of the Mining and
 Metallurgical Academy in Krakow.

He was born on 4 January 1872 in Kroszow on the Dunajec River. After
 completing his studies at the Lwow Polytechnicum in 1895, his mathematical
 studies at Berlin University, and some practical experience in engineering, he
 was made assistant in the Department of Mathematics at the Lwow Polytechnicum.
 He received his doctor's degree there for his thesis, "Z Teorii Wzajemnego
 Ciężkości" (Theory of Impact Between Solids), the findings of which were
 published in the *Annalen der Physik* (1904) and became widely incorporated in
 textbooks. In 1908, he was made professor of technological mechanics and in
 1911 took over the direction of the Mechanical Research Station in Lwow. In
 1910, he became a member of the Vienna Technical Research Bureau and, 3 years
 later, consultant at the Technical and Industrial Museum in Vienna.

In 1921 - 1922, Huber became president of the Lwow Polytechnicum and super-
 vised the construction of the new Technician's Club. In 1920, he was chosen
 charter member of the Academy of Technical Sciences in Warsaw and an active mem-
 ber of the Lwow Scientific Society; from 1925 to 1928 he was director of the
 Lwow Branch of the Polish Society of Mathematicians. In 1928, he went to Warsaw
 as professor of technological mechanics at the Polytechnicum, remaining there
 until the outbreak of war in 1939.

He was president of the Academy of Technical Sciences in Warsaw from 1928
 to 1931. From 1927, he was a contributing member and from 1934 an active member
 of the Polish Academy of Learning.

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- 1 -

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In 1929, at the suggestion of the Polish Commission for International Intellectual Cooperation, Professor Huber gave a series of lectures at the Zurich Polytechnicum on his own work, the *Z Teorii Plyt Ortotropowych* (Theory of Orthotropic Plates). In 1931, he was chosen an active member of the Warsaw Scientific Society and a member of the Permanent Committee of the International Association for the Testing of Materials. He took part in the first congress of the latter association in Zurich as a member of the Honorary Congress Committee. At the invitation of the Permanent Committee of the International Congress of Bridge Builders and Structural Engineers, he lectured in Paris in 1932 on the basic theory of the so-called mushroom ceilings. A year later, he was made chairman of the Organization Committee of the Polish Association for Testing Materials.

As early as 1910 - 1911 in Lwow, Huber became interested in the scientific bases of aeronautics. After World War I, he worked on problems of endurance and in 1932 - 1939 directed research at the Department of Aeronautics in the Ministry of Military Affairs. In 1932, he was made chairman of the Warsaw Polytechnic Society and directed the Laboratory for Testing the Strength of Materials at the Warsaw Polytechnicum. In 1934, he became head of the Engineering Department of the Academy of Technical Sciences and Vice-President of the Committee of Mianowski Foundation.

During the occupation Huber taught in several schools of technology and in secret groups and completed several works and reference books, almost all of which were preserved. After the war, he received an honorary doctor's degree from the Mining Academy in Krakow and was made professor of the technology of stereomechanics at the Gdansk Polytechnicum. In 1949, he moved to Krakow.

In 55 years of activity, Professor Huber has completed about 100 scientific works and a number of textbooks.

ROMAN KOZLOWSKI

Warsaw, Zycie Nauki
Mar/Apr 50

Roman Kozlowski, professor of paleontology at Warsaw University, is a winner of the State Prize in Science. He was born on 1 February 1889. He studied mathematics and natural sciences at Freiburg University and at the Sorbonne in Paris. He spent 8 years from 1913 to 1920 in Bolivia, first as professor of geology and later as director of the State School of Mining Engineering in Oruro. During this period, he accumulated a large collection of mineralogical specimens from the Bolivian Andes which were used later as the basis for his own works and for works of other scientists. He worked on his Bolivian collection in Paris in 1923 at the Museum of Natural History. He received the degree of doctor of philosophy from the Sorbonne on the basis of his "Faune Devonienne de Bolivie" and then returned to Poland as professor of paleontology and geology in the Free Polish University. In 1927, he was made professor of paleontology at Warsaw University. He held this position until the outbreak of war and returned to it after the liberation. During World War II, he was custodian of the State Geological Institute of Warsaw.

Professor Kozlowski has achieved great renown in science both at home and abroad. In his first works -- "Les Brachiopodes du Carbonifere sup. de Bolivie," "O Skamienialosciach Dewonskiej Parany" (Fossils of Devonian Parana), and "Faune Devonienne de Bolivie" -- he used new research methods and contributed information on the animal kingdom of the remote geological periods.

- 2 -

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In Poland, Professor Kozlowski did research on graptolites, marine animal fossils from the Ordovician Period which started 430 million years ago and the Gottland Period which ended 315 million years ago. The position of graptolites in the animal kingdom had not been defined previously. Very little was known about their organisms, especially those of the oldest specimens of the species from the so-called Tremadokian Period. It was thought that they were cnidaria, a simple organism consisting only of a sack for imbibing nourishment. Professor Kozlowski proved that graptolites have a complex organism. He obtained his research material from the Tremadok rocks in Wysoczka near Bogoria in the Swietokrzyskie Mountains. Since the Tremadok rocks do not deteriorate easily the fauna were preserved and Kozlowski was able to assemble parts of graptolite skeletons which were processed for preservation and sketched. From these sketches it was possible to recreate all details of these organisms. During this research, Kozlowski discovered 38 new types of graptolites and a number of other animals of the Tremadok formerly unknown. His treatises, "Informations Preliminaires sur les Graptolithes du Tremadoc de Pologne et sur leur Postee Theorique" and "Graptolity i Pare Nowych Grup Zwierzecych Tremadoku Polskiego" (Graptolites and Several New Animal Groups of the Polish Tremadok) supplied concrete proof of the theory of the evolution of species.

Unusually valuable for Polish scientists are the mineral collections and research material which Professor Kozlowski collected in Bolivia. They were used for special research in Poland by Professors Jaskulski and Smulikowski, with the collaboration of Professor Kozlowski; the results were published in three treatises on the tin and silver deposits of Bolivia and a treatise on the magmatic rocks of the Bolivian Andes. Kozlowski's meteorological observations in Bolivia were published by E. Stenz in several Polish and foreign periodicals.

Professor Kozlowski is also an excellent teacher and the author of many textbooks, including Paleozoologia, Historia Zwierzat (Paleozoology, a History of Animals). Many valuable paleontological works were produced by younger scientists under his direction.

After the war, Professor Kozlowski organized the Paleontological Institute of Warsaw University and was instrumental in establishing a geological library. He was very active in restoring Polish science. He is a member of the Commission for Lyceum Curricula, Commission for the Restoration of Polish Science, Commission for the Evaluation of Textbooks, the State Geological Council, and the Section for the Organization of Scientific Institutes, a branch of the chief council. In 1945, he was twice delegate to international conventions in Paris. He is a member of a number of foreign and Polish scientific societies: Warsaw Scientific Society, Polish Academy of Learning, the Paleontological Society USA, the Geological Society of London, the Colombian Academy of Exact Sciences -- Physics, Chemistry, and Natural Sciences -- and others.

ROMUALD CEBERTOWICZ

Warsaw, Zycie Nauki
Mar/Apr 50

Romuald Cebertowicz, State Prize winner in science, is a professor at the Gdansk Politechnicum and director of the Institute of Hydrology. He was born on 7 February 1897. He attended the School of Engineering at Warsaw Politechnicum in 1929 - 1936 and received scientific training under Professor H. Rybczynski.

- 3 -

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1

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During World War II, Cebertowicz continued his work with Professor E. Meyer-Peter at the Institute of Submarine Construction of the Zurich Polytechnicum. He specializes in the reinforcement of foundations and hydrological research. A few of his publications in this field are: "The Dniester-Prut Waterway;" Problems of Friction Between the Earth and Concrete, Steel, Brass, and Wood Slabs (Zagadnienie tarcia pomiedzy ziemia a plytami: betonowa, stalowa, mosiezna i drewniana); Relation Between Horizontal and Vertical Friction (Stosunek tarcia poziomego do tarcia pionowego); Calculation of Data in Experiments on Compressed Tock Particles (Obliczanie danych z doswiadczen nad probkami sciskanymi okrucchow skalnych); and Basic Principles for Determining the Mechanical Properties of Rock Particles (Wytyczne do okreslania mechanicznych wlasciwosci okrucchow skalnych).

The Cebertowicz method of reinforcing building foundations [see following article] and his research in hydraulic models and new marine investment projects carried on at the Marine Institute of the Gdansk Polytechnicum are especially important to the reconstruction and industrialization of the country. The ground reinforcement method developed by Cebertowicz has given marvelous results in construction. The sand and clay earth prevalent in Poland does not have the required compressibility and the great sustaining power necessary to support structures.

Because the sustaining power of the ground is inadequate, it has become imperative to find some means of preventing buildings from settling. Before the war costly methods such as deep-laid foundations with driven piles or sunken caissons were used. The new method increases the sustaining power of the ground fourfold and is a great improvement over methods previously used. It is being used with great success in rebuilding Warsaw. It is ten times less costly, easier to use, and can be used also for reinforcing river banks and trench walls.

Cebertowicz is also carrying on important work on new marine projects. He and his associates are working on the Wisla River Channel at Krakow and at Warsaw and on the sluice gates on the Kamienna River at Rejowiec and on the Odra. The former is important for the transportation of Slask coal to Nowa Huta near Krakow; the latter is associated with the building of the Oder-Danube Canal.

At present Cebertowicz is also working on a method of electro-osmosis to hasten tree growth

CEBERTOWICZ METHOD TO SOLIDIFY SOIL

Dusseldorf, Slowo Polskie
25 Jun 50

Romuald Cebertowicz, professor at the Gdansk Polytechnicum, has invented a new method for removing moisture and reinforcing foundations by electro-osmosis. By this method, an electric charge is sent into the ground, causing water particles to combine with positive ions and be drawn to a negative electrode. Chemical substances which form a cohesive salt with the grains of earth can then be introduced to replace the water particles and thereby increase the sustaining power of the ground fourfold.

A variation of the method employs aluminum electrodes. When the current is sent into the ground, sodium and potassium ions are replaced by aluminum ions, increasing the hardness of the land and removing some of the moisture.

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- 4 -

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